

## Schottky Bridge Rectifiers

### FEATURES

- Schottky technology
- Ideal for automated placement
- High surge current capability
- Moisture sensitivity level: level 1, per J-STD-020
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition
- AEC-Q101 qualified

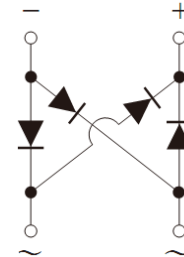
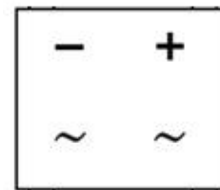


ABS



### TYPICAL APPLICATION

- General purpose use in ac-to-dc bridge full wave rectification for LED bulb , also suitable for telecommunication



### MECHANICAL DATA

**Case:** Molded plastic body

Molding compound, UL flammability classification rating 94V-0

Packing code with suffix "G" means green compound (halogen-free)

**Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

**Polarity:** Polarity as marked on the body

**Weight:** 0.09g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)				
PARAMETER	SYMBOL	SBS34	SBS36	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	40	60	V
Maximum RMS voltage	V <sub>RMS</sub>	28	42	V
Maximum DC blocking voltage	V <sub>DC</sub>	40	60	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	3		A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	80		A
Maximum instantaneous forward voltage (Note 1) I <sub>F</sub> = 3 A	V <sub>F</sub>	0.50	0.70	V
Maximum DC reverse current at rated DC blocking voltage (Note 2) T <sub>J</sub> =25°C T <sub>J</sub> =100°C T <sub>J</sub> =125°C	I <sub>R</sub>	0.5		mA
		10	-	
		-	10	
Rating for fusing (t<8.3ms)	I <sup>2</sup> t	26		A <sup>2</sup> s
Typical thermal resistance	R <sub>θJL</sub>	41		°C/W
	R <sub>θJA</sub>	83		
Operating junction temperature range (Note 3)	T <sub>J</sub>	- 55 to +125	- 55 to +150	°C
Storage temperature range	T <sub>STG</sub>	- 55 to +150		°C

Note 1: Pulse test with PW=300 μs, 1% duty cycle

Note 2: Pulse Test with PW=40ms

Note 3:  $\frac{dP_{tot}}{dT_j} < \frac{1}{R_{th(j-a)}}$  Condition to avoid thermal runaway based on the application thermal conduction, δ=0.5

ORDERING INFORMATION				
PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
SBS3x (Note 1, 2)	RE	G	ABS	1,000 / 7" Plastic reel
	RG		ABS	5,000 / 13" Paper reel

Note 1: "x" defines voltage from 40V (SBS34) to 60V (SBS36)

Note 2: Whole series with green compound

EXAMPLE				
PREFERRED PART NO.	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
SBS36 REG	SBS36	RE	G	AEC-Q101 qualified Green compound

**RATINGS AND CHARACTERISTICS CURVES**

( $T_A=25^\circ\text{C}$  unless otherwise noted)

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

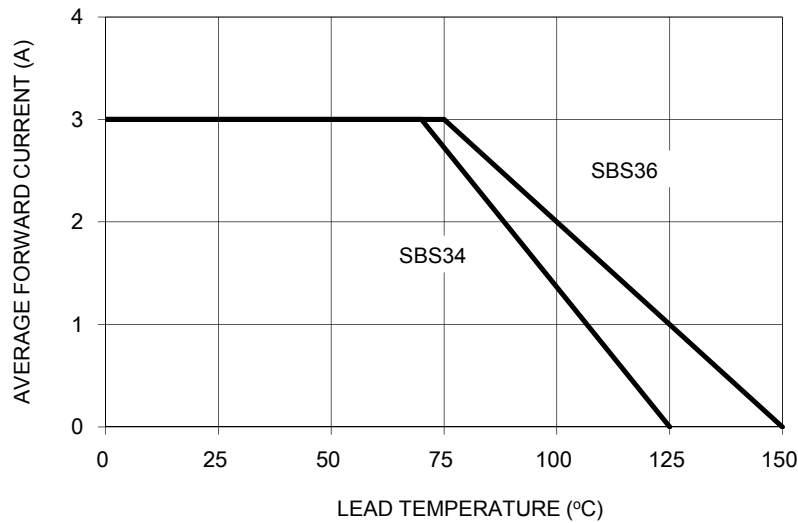


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

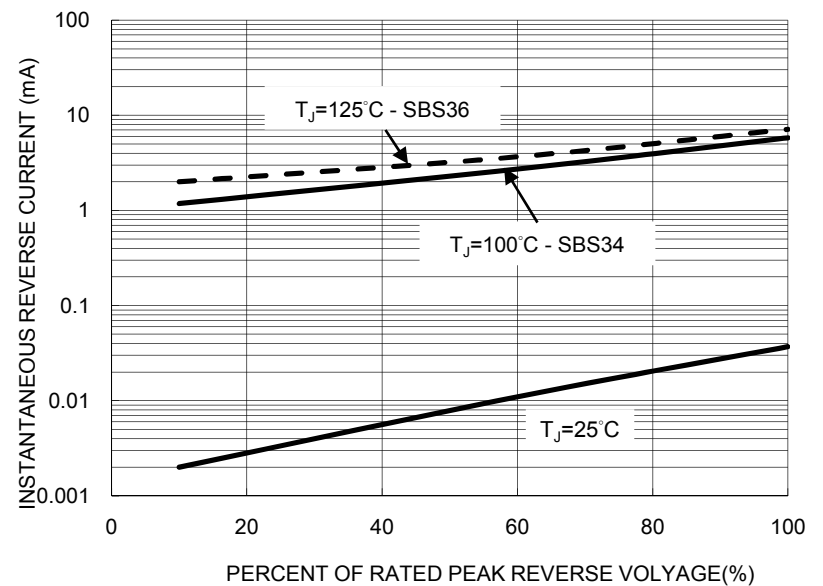


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

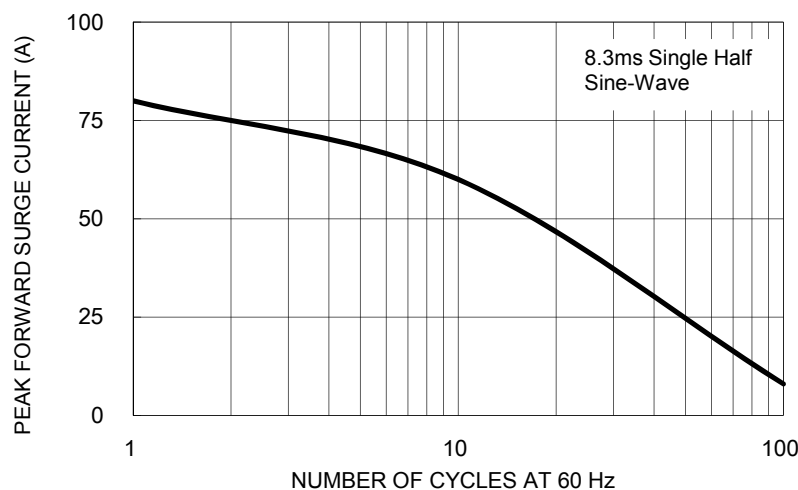


FIG. 4 TYPICAL JUNCTION CAPACITANCE

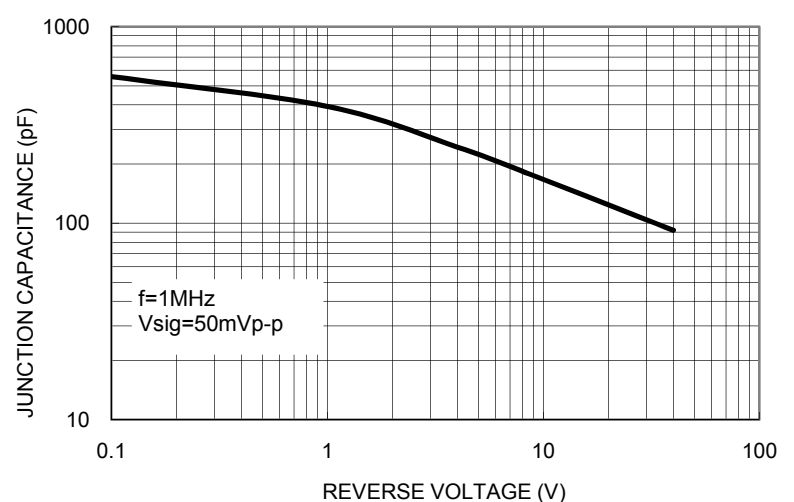
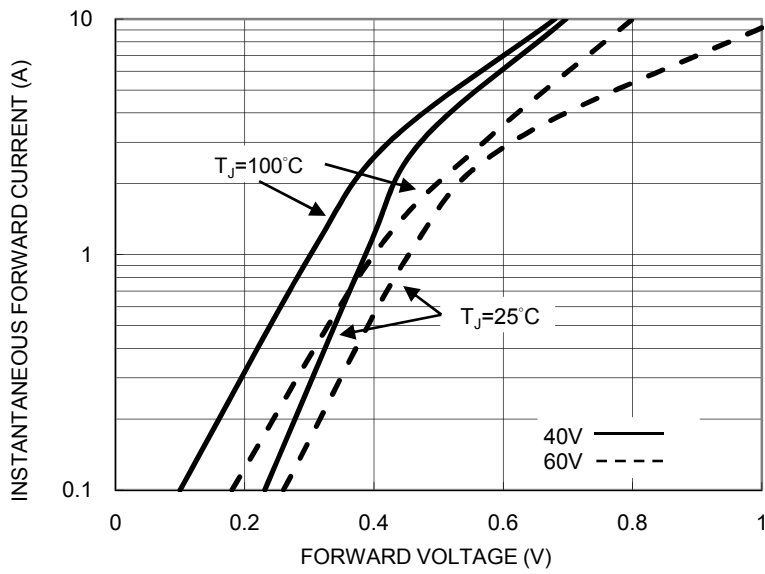
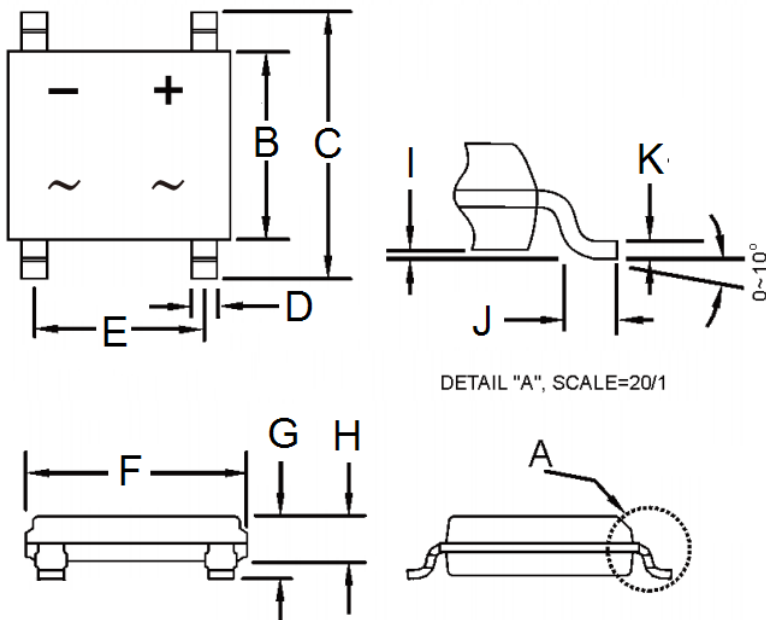


FIG. 5 TYPICAL FORWARD CHARACTERISTICS



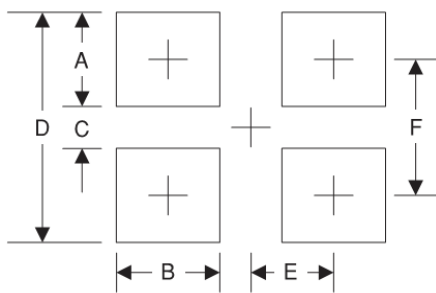
PACKAGE OUTLINE DIMENSIONS

ABS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
B	4.30	4.50	0.169	0.177
C	6.25	6.65	0.246	0.262
D	0.60	0.70	0.024	0.028
E	3.90	4.10	0.154	0.161
F	4.90	5.10	0.193	0.200
G	1.40	1.60	0.055	0.063
H	1.35	1.45	0.053	0.057
I	0.05	0.15	0.002	0.006
J	0.30	0.70	0.012	0.028
K	0.15	0.25	0.006	0.010

SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
A	1.5	0.059
B	0.9	0.035
C	4.22	0.166
D	7.22	0.284
E	2.05	0.081
F	5.72	0.225

MARKING DIAGRAM



- P/N = Specific Device Code
- YW = Date Code
- F = Factory Code

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